

Status of Elder Oral Health in Kentucky, 2005 **Results from the Kentucky Elder Oral Health Survey**

Elder Responses from Questionnaire

- The elder population (those 65 years or older) is the fastest growing group in the United States and similarly in Kentucky. There are an estimated 504,793 elders in Kentucky (2000 census) who make up approximately 13.9% of Kentucky's population. (AQ1-AQ2)
- The majority of elders surveyed are between the ages of 65 to 84 years old (76.5%). The Nursing Home (NH) and Homebound (HB) elders are proportionately older (45.0% and 22.4% respectively are age 85 or older). (AQ1-AQ2)
- The ratios of women to men increase according to their living status:
 - Women to men in elder population in Kentucky: approximately 3:2 (Females=300,812; males=203,981, ratio of 59.6:40.4 in 2000 census)
 - Women to men in the KY Elder Sample: approximately 3:1 (females = 1,071; males = 315)
 - Women to men in Sanders-Brown (SB) sample: approximately 2:1
 - Women to men in Well Elder (WE) sample: approximately 2:1
 - Women to men in Nursing Home (NH) sample: approximately 3:1
 - Women to men in Homebound (HB) sample: approximately 4:1(AQ1-AQ2)
- Socioeconomic measures
 - Urban/rural location: majority of sampled elders reside in urban or small city location (79.3%). Only 18.6% live in rural areas. (AQ3-5, AQ6)
 - Where elders live: 69.3% of sampled elders live at home and 24.3% live in nursing homes. The remaining 6.4% live elsewhere (assisted living communities, etc). (AQ7)
 - Elders' marital status: The majority of sampled elders are widowed (57.6%). Another 21.1% of elders are married. (AQ8)
 - Living situation: 46.0% of sampled elders live alone. Another 16.9% live with their spouse and 5% of elders live with their children. (AQ9)
 - Elders' educational status: Of those elders sampled, almost half (49.8%) had less than a high school education (attended up to 12th grade but did not graduate from HS). Another 20.3% had a high school education, and 12.6% obtained a college degree or advanced (graduate degree) education. (AQ11)
 - Elders' family income averages: Almost half (46.5%) of sampled elders' family income was \$15,000 or less. About 14.5% of elders earned from \$15,000 up to \$50,000, and 3.8% of elders earned \$50,000 or greater. (AQ13)
- General Health Problems experienced during the past 12 months
 - Over half of elders sampled reported arthritis/rheumatism (53.2%) and high blood pressure (52.2%). Besides arthritis and high blood pressure, the top three health problems reported were: heart problems (33.9%), back problems (30.3%), and diabetes (22.6%). (AQ15)

Elder Responses from Questionnaire (continued)

- Elders taking medications:
 - Almost all elders sampled (93%, 1290/1386) take either a prescription or over-the-counter medication
 - Regarding prescription medications: 81.7% (1132/1386) report taking prescription meds
 - SB elders take the most prescription meds. 91.4% (64/70) take 1 or more meds
 - The majority of NH elders take 5 or more prescription meds (262/413, 63.4%) followed by the HB elders (264/473, 55.8%)

(AQ17, AQ17s1)
- Elders' top conditions/diseases that limit mobility in descending order were: physical health limitations (non-specific) (28.9%), falls (12.8%), fractures of hip, knee or ankle (10.7%) and stroke (10.0%). Another 7.4% of elders stated that reasons were not listed for their mobility problems. (AQ19)
- Only 9.4% of all sampled elders reported smoking everyday. However, 14.4% of the HB elders reported smoking everyday which is similar to the 2003 BRFSS findings which reported that 12.5% of people aged 65 and older smoked daily. (AQ22)
- Most elders (86.0%) reported having consumed no alcoholic beverages within the past 30 days. Ten percent (10.0%) report drinking some alcohol occasionally but not every day, and 2.3% of elders report drinking alcohol daily. However, twenty percent (20.0%) of the SB elders reported daily alcohol consumption. The 2003 BRFSS data reported that 16.9% of people aged 65 years and older had a drink within the past 30 days. (AQ23)
- The majority of elders report brushing their teeth at least once a day (77.1%). The most common reason given for not brushing was having no natural teeth remaining/wearing dentures. (AQ25)
- A much lower percent (23.0%) of elders report flossing regularly. Interestingly, 71.4% of the SB group reported flossing regularly compared to a low of 12.1% of the NH elders. In addition to having no natural teeth remaining as a main reason for not flossing, many elders cited physical problems or physical inability as reasons. (AQ26)
- Twenty-two percent (22.1%) of elders reported dissatisfaction with their ability to chew food as a result of the condition of their teeth, gums, or dentures. This ranged from a low of 10.0% in the SB group to a high of 32.8% in the HB elders. (AQ27a)
- Nine percent (9.2%) of elders reported dissatisfaction with their ability to speak clearly as a result of their teeth, gums, or dentures. This ranged from a low of no reports (0%) in the SB group to a high of 14.2% in the HB elders. (AQ27b)

Elder Responses from Questionnaire (continued)

- Twenty three percent (23.2%) of elders reported dissatisfaction with the appearance of their teeth and/or dentures. This ranged from a low of 14.3% in the SB group to a high of 29.2% in the HB elders. (AQ27c)
- Twenty-eight percent (27.7%), of elders reported having current dental problems. This ranged from a low of 12.9% in the SB group to a high of 40.0% in the HB elders. (AQ28)
- Nineteen percent (19.3%) of elders reported having dental pain in their teeth, gums or jaws. The range was a low of 10.0% in the SB group to a high of 23.7% in the HB elders. (AQ29)
- The majority of elders reported having a tooth or teeth removed due to tooth decay or gum disease (70.4%). This ranged from a low of 43.8% in the SB group to a high of 80.5% in the HB elders. (AQ33)
- Of those elders who have teeth (are dentate), almost one-fourth (23.5%) reported having active dental decay in their teeth. This ranged from a low of 1.6% reported by the SB group to a high of 31.2% in the HB elders. (AQ33a2)
- Thirteen percent (13.2%) of dentate elders reported their gums bleed when they brush and/or floss their teeth. Bleeding gums indicate inflammation and disease. The greatest percentage of bleeding gums was found in the NH (13.8%) and HB (16.1%) elders. (AQ33a3)
- Fifteen percent (14.7%) of dentate elders reported red, tender, or swollen gums. The greatest percentage of red, tender, or swollen gums was found in NH (12.9%), WE (15.4%) and HB (19.5%) elders. These signs also indicate inflammation and suggest gum disease. (AQ33a4)
- Nineteen percent (19.2%) of dentate elders reported gingival recession. The greatest percentage of recession reported was in the WE (22.7%) and the HB (23.9%) elders. (AQ33a5)
- Thirteen percent (12.8%) of dentate elders reported the presence of a loose tooth or teeth. There were no reports of loose teeth from the SB group and a high of 13.3% in the NH group and 18.1% in the HB elders. A loose tooth (or teeth) is a sign of moderate to severe periodontal disease and/or loss of periodontal attachment support. (AQ33a6)
- Thirty-eight percent (37.7%) of dentate elders reported having calculus, tartar, or build-up on their teeth. The greatest percentage of calculus reported was in the NH (36.5%), WE (36.8%) and HB (44.9%) elders. (AQ33a7)

Elder Responses from Questionnaire (continued)

- Eighty five percent (85%) of those elders who are edentulous (have no teeth) reported having **upper and lower dentures**. This ranged from a low of 79.2% of NH elders who have both upper and lower dentures to a high of 100% of SB elders who have upper and lower dentures (all SB elders who are missing their teeth have dentures). The percentage of elders reporting having **only an upper denture** was 9.8% in the NH elders, 5.2% in HB elders and 3.3% in the WE group. Elders reporting having **no replacements** at all for missing teeth ranged from a low of 0% in the SB group to a high of 10.9% in the NH elders. (AQ36)
- Most elders who have dentures wear them daily (88.9%). Some of the elders only wear their dentures some of the time (6.2% of the HB elders and 3.0% of the WE), and other elders never wear their dentures even though they have them (7.5% of NH elders and 3.7% of HB elders). (AQ38)
- The majority of elders who had dentures reported their dentures fit either excellent or good (58.8%). However, a large minority felt their dentures fit either fair or poor (40.0%). The percent of elders complaining that they had fair-to-poorly fitting dentures were the highest in the HB elders (51.6%) and SB group (50%). (AQ39)
- The length of time elders reported having their dentures was as follows:
 - Less than 1 year, 20/574 (3.5%)
 - From 1 year to 10 years, 161/574 (28.1%)
 - From 11 to 20 years, 110/574 (19.2%)
 - Greater than 20 years, 250/574 (43.6%)The groups who had their dentures the longest included the NH group (36.5% had dentures more than 20 years old), the WE group (46.1% had dentures more than 20 years old) and HB elders (46.3% had dentures more than 20 years old). (AQ41)
- Elders' self-reported need for new dentures was 33.5%. This ranged from a low of 22.7% for NH elders to a high of 41.4% in the HB elders. (AQ42)
- Thirty-five percent (35.4%) of elders reported they had made a dental visit within the past year. This ranged from a low of 22.8% (HB) and 28.3% (NH) to a high of 88.6% (SB). (AQ43)
- The time since an elder last made a dental visit for any reason was found to be as follows:
 - Less than 1 year = 35.4%
 - From 1 to 5 years = 23.2%
 - Greater than 5 years = 32.8%The homebound group went the longest time without visiting the dentist of any of the elder groups (45.3% had not visited in 5 or more years), followed by the NH group (32.9% had not visited the dentist in 5 or more years). (AQ43s1)

Elder Responses from Questionnaire (continued)

- The elders' reasons for **not** going to the dentist are listed here by order of precedence:
 - The majority did not make a dental visit because they did not think they needed to go: 446/860, 51.9%
 - Cost was the next most important reason for not visiting the dentist: 194/860, 22.6%
 - Other reasons ranked third, but were non-specific: 86/860, 10.0%
 - Dental fear and nervousness attributed for only 1.8% (15/860)
 - Although "can't get to the office" was **only** marked by the HB and NH elders (4.1% and 10.9% respectively), it represents a significant reason why these two groups did **not** visit a dentist in the past year.

(AQ44)

- The elders' top 3 reasons why they **did** go to see the dentist are listed here:
 - Those coming for prosthetics (dentures or partials): 513/1309 (39.2%)
 - Those coming for preventive reasons (cleaning by hygienist or dentist): 393/1309 (30.0%)
 - Elders coming due to being in pain and needing an emergency treatment/extraction: 196/1309 (15.0%)

(AQ45.1)

- Overall, 40.6% of elders reported they had barriers to getting dental care and services. Sixty-six percent (66.1%) of WE and 84.3% of the SB group reported they have **no** barriers which prohibit them from seeking access to dental care or services. Conversely, 69.1% of the HB elders and 28.1% of the NH elders report they **have** major barriers to seeking dental care. (AQ46)

- Elders' self-reported major barriers to getting dental care or services included:
 - Lack of dental insurance: 318/563, 56.5%
 - Inability to afford dental care: 300/563, 53.3%
 - No way to get there (to dental office): 142/563, 25.2%
 - Medicaid not accepted (by dentist): 41/563, 7.3%
 - Other reasons: 45/563, 8.0%

(AQ46s1-10)

- Over one-third (193/517, 37.3%) of elders reported difficulty in obtaining basic services (dental check-ups, cleanings and fillings); 41.6% (215/517) in obtaining advanced dental services (crowns, bridges, implants, periodontal treatment and extractions; and 34.1% (176/517) in obtaining prosthodontic dental services (having dentures or partials made). Fifteen percent (14.9%) reported difficulty in obtaining emergency dental services (visit dentist right away for any dental pain or acute oral problem). (AQ47s1-8)

Elder Responses from Questionnaire (continued)

- The elders gave recommendations for improving access to dental care and services. The top four recommendations were:
 - Make dentistry more affordable: 647/1166, 55.5%
 - Use a mobile clinic/mobile van to access elders: 331/1166, 28.4%
 - Have dentist or dental hygienist make house calls: 259/1166, 22.2%
 - Make dental offices more handicapped accessible: 177/1166, 15.2%
- (AQ48s1-5)*

Clinical Findings

- Percentage of sampled elders (all groups) found to be completely edentulous (those elders with no teeth): 40.3% (383/951)
 - Ranged from a low of 8.6% in the Sanders-Brown (SB) group to a high of 43.8% in the nursing home (NH) group. However, the HB elders **reported** (in the self-reported survey) the highest level of edentulism (56.7%)
- Extraoral pathology found in sampled elders:
 - Face and neck pathology: 2.3% (22/951)
 - TM Joint pathology: 19.7% (187/951)
 - Lips/Corners of mouth: 5.9% (56/951)(CQ1-3)
- Intraoral pathology found in sampled elders:
 - Inside cheeks and lips: 1.1% (10/951)
 - Roof of mouth: 10.1% (96/951)
 - Tongue: 0.3% (3/951)
 - Floor of mouth: 0.7% (7/951)
 - Saliva (lack of): 5.1% (48/951)(CQ5-9)
- Dentate (those having teeth) elders found to have gingivitis: 50.4% (286/568)
 - Ranged from a low of 4.7% in SB to a high of 68.0% in HB(CQ13)
- Dentate elders found to have gingival recession: 66.0% (375/568)
 - Ranged from a low of 42.2% in SB to a high of 70.5% in WE(CQ14)
- Dentate elders found to have calculus: 46.5% (264/568)
 - Ranged from a low of 14.1% in SB to a high of 60.0% in HB(CQ15)
- Dentate elders found to have tooth mobility: 8.6% (49/568)
 - Ranged from a low of 1.6% in SB to a high of 28.0% in HB(CQ16)
- Dentate elders found to have gingival bleeding: 41.0% (233/568)
 - Ranged from a low of 6.3% in SB to a high of 56.0% in HB(CQ17)
- Overall periodontal health was found to be either excellent or good in 35.4% of the dentate elders. Fifty-one percent (50.7%) of the elders were rated to have fair or poor overall periodontal health. The best overall periodontal health was found in the SB group (90.6% were excellent to good) and the worst periodontal health was found in the HB and NH elders (64.0% and 64.2% respectively were rated either fair or poor). (CQ18)

Clinical Findings (continued)

- Dentate elders and urgency of periodontal problems in those elders who have periodontal problems:
 - Routine care needed within 6 months: 56.0% (316/568)
 - Early care needed within 1 month: 9.3% (53/568)
 - Immediate care needed as soon as possible (1.2%) (7/568)(CQ19)

- Dentate elders found to have dental caries (cavities): 35.2% (200/568)
 - Ranged from a low of 0.0% in SB to a high of 64.0% (16/25) in HB(CQ20)

- Twenty-eight percent (27.5%) of dentate elders had 4 or less teeth w/caries (few) and 7.8% had 5 or more teeth w/caries (many). The highest percentage of caries seen were in the NH and HB elders:
 - NH: 37.9% (88/232) had 4 or less teeth w/caries and 14.2% (33/232) had 5 or more teeth w/caries
 - HB: 48.0% (12/25) had 4 or less teeth w/caries and 16.0% (4/25) had 5 or more teeth w/caries(CQ21)

- Urgency of caries in those dentate elders who have caries were rated as follows:
 - Elders needing routine care (within 6 months): 43.5% (87/200)
 - Early care (within 1 month): 52.0% (104/200)
 - Immediate care, (as soon as possible): 4.5% (9/200)(CQ22)

- Statewide, 20.7% (61/295) reported their prostheses (either removable or fixed partial bridges) were inadequate based on comfort, function or esthetics.
 - Ranged from a low of 6.3% in (2/32) SB to a high of 40.0% (4/10) in HB(CQ26)

- The category “overall oral health status” for **dentate elders** considered: the presence of oral pathology, overall cleanliness of dentition, and presence or absence of oral symptoms. Examiners were calibrated to ensure that the oral health status rating was consistent with the most severe rating of periodontal disease or caries. For each criteria, the following guide was given:
 - Excellent = excellent periodontal health; no caries
 - Good = good periodontal health; 4 teeth or fewer with caries
 - Fair = fair periodontal health; 5 teeth or more with caries
 - Poor = poor periodontal health; teeth with caries which are symptomatic or close to pulp

Clinical Findings (continued)

Statewide, 40.3% (229/568) of dentate elders were found to have excellent to good overall oral health and 58.8% (334/568) were found to have fair to poor oral health. Significantly, 92.2% of the SB group's overall oral health was reported to be excellent to good (59/64). Fifty percent (49.4%, 122/247) of the well elders' overall oral health status was excellent to good. Conversely, the vast majority of the ratings given for the overall oral health status for NH and HB elders were fair to poor (79.8%, 185/232 and 76.0%, 19/25 respectively). (CQ27)

- Statewide, 87.5% (335/383) of the edentulous (having no remaining natural teeth) elders had dentures. (CQ28)
- Fifty percent (49.9%, 167/335) of edentulous elders reported their dentures were inadequate based on comfort, function or esthetics. The **adequacy** of the dentures was determined by the elders' own perception of the three criteria: dentures are comfortable, they function/work well and they look good. If one or more of these criteria were not met, the elder reported his/her denture to be inadequate. (CQ29)
- The category "overall oral health status" for edentulous elders considered: the presence/absence of oral/perioral lesions, presence/absence of oral/perioral debris, condition of alveolar ridges, condition of mucosa and other oral tissues, and condition of the TM joint. The examiner did **not** consider: presence/absence of dentures or the condition of dentures if any. For each criteria, the following guide was given:
 - Excellent = no pathology
 - Good = minor pathology
 - Fair = isolated; acute areas
 - Poor = significant pathology; or problemsStatewide, the vast majority of edentulous elders were found to have an oral health status of excellent to good (84.9%, 325/383). The 11.8% (45/383) who were found to be fair or poor had denture sores, denture stomatitis, and/or oral conditions largely resulting from chronic use of dentures or poor oral hygiene. Overall oral health status in the edentulous elders ranged from the best (excellent to good, 100%) in the SB group to the worst (fair to poor, 30.8%) in the homebound elders. (CQ32)
- Clinical treatment urgency for all elders (dentate, partially dentate, and edentulous elders) broken down into 4 categories:
 - No problems seen, recommend seeing dentist yearly: 32.0% (304/951)
 - Routine dental care, recommend seeing dentist within 6 months: 53.8% (512/951)
 - Early care, recommend seeing dentist within 1 month: 12.9% (123/951)
 - Immediate care, recommend seeing dentist ASAP: 1.1% (10/951)(CQ33)